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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,259

09/20/2006

Laurie Scanlin

132-03

4568

23713

7590

06/11/2008

GREENLEE WINNER AND SULLIVAN P C

4875 PEARL EAST CIRCLE

SUITE 200

BOULDER, CO 80301

EXAMINER

TSAY, MARSHA M

ART UNIT

PAPER NUMBER

1656

MAIL DATE

DELIVERY MODE

06/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,259	SCANLIN ET AL.	
	Examiner	Art Unit	
	Marsha M. Tsay	1656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16, 17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/20/07, 04/29/08</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1656

Claims 13-15 are withdrawn. Claims 10, 12, 16-17 are withdrawn because they are drawn to products that are not proteins or a protein concentrate. Claims 1-9, 11, 18 are pending and currently under examination.

Priority: The benefit date is December 16, 2003.

Specification

The disclosure is objected to because of the following informalities: on page 1 of the specification, the priority data needs to be updated with a paragraph to related applications.

Appropriate correction is required.

Claim Objections

Claims 13-15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 19 has been renumbered to claim 18.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, step (c), recites extracting the protein from the defatted quinoa in alkaline solution. It is unclear if the protein is extracted using alkaline solution or if the defatted quinoa is immersed in alkaline solution. Further clarification is requested.

Claim 6 recites an appropriate pH. It is unclear what constitutes as an appropriate pH.

Claim 7 recites the limitation "the pH" in the claim. There is insufficient antecedent basis for this limitation in the claim of its parent claim.

Claim 8 recites wherein the extraction in step (2) is carried out by a solvent or a mechanical means. Claim 8 is dependent on claim 5. It should be noted that there is no step (2) in claim 5. Further, it is unclear what type of solvent should carry out the extraction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horisberger et al. (US 4072666). Horisberger et al. disclose a process of isolating vegetable proteins. Horisberger et al. disclose the vegetable starting material is obtained from a leaf protein source which can be selected from quinoa (col. 1 lines 35-42). The vegetable starting material usually has a crude protein content of 25 to 50% by weight (col. 1 lines 45-47). In working example 1, Horisberger et al. disclose using alfalfa as the vegetable starting material and obtaining a powder having a protein content of around 80% (col. 2 lines 44-58). Horisberger et al. do not explicitly teach a quinoa protein concentrate having a protein content of at least about 50 weight %.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Horisberger et al. by substituting quinoa for alfalfa as the vegetable starting material to obtain a quinoa powder having a protein content of at least 80 weight % (claims 1-4, 9). The motivation to do so is given by Horisberger et al., which disclose that quinoa is an acceptable vegetable starting material from which proteins can be isolated from. Further, one of ordinary skill would expect to be successful in obtaining a quinoa powder having a protein content of around 80% because Horisberger et al. disclose a different vegetable starting material, i.e. alfalfa, can be successfully processed to obtain a powder having a protein content of around 80%.

Claim 9 is included in this rejection because it is a product claim drawn to a quinoa protein concentrate having a protein content of at least about 50 weight %. The product is not dependent upon the manner in which it is produced since the end product is a quinoa protein concentrate having a protein content of at least about 50 weight %.

Art Unit: 1656

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrison (US 4175075) in view of Horisberger et al. (4072666). Garrison et al. disclose methods of processing vegetable seeds to isolate a protein isolate or concentrate comprising comminuting vegetable seeds to form flakes and then treating said flakes with a solvent to extract oil and leaving deflated flakes (col. 1 lines 32-38). Alkaline solutions are traditionally used to solubilize and extract protein (col. 1 lines 44-46). The solubilized protein can then be removed from the insoluble seed materials and precipitated by various means, i.e. isoelectric precipitation and filtration (col. 1 lines 46-50). Garrison et al. do not teach quinoa.

Horisberger et al. disclose quinoa is a vegetable seed from which proteins can be isolated from.

It would have been obvious to one of ordinary skill to modify the method of Horisberger et al. by substituting the quinoa of Horisberger et al. for the vegetable seed of Horisberger et al. in order to obtain a protein concentrate containing at least about 50 weight % protein (claims 5-8). While Horisberger et al. does not disclose all the elements recited in steps 5(a) to 5(f), it would be reasonable for one of ordinary skill to recognize that since Horisberger et al. disclose the essential steps necessarily to process and isolate protein from a vegetable grain, i.e. comminuting the seed, extracting the oil, extracting the protein from the defatted seed in alkaline solution, one of ordinary skill would know to separate the extracted protein from the rest of the seed material and dry said extracted protein in order to obtain a protein concentrate that should have about a 50 weight % protein. The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage

Art Unit: 1656

ranges is the optimum combination of percentages. See Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382.

Claims 11, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slimak (US 4911943). Slimak teaches a quinoa flour consisting of quinoa starch and quinoa fiber (col. 19 lines 12-18). Slimak teaches that the quinoa flour contains substantially all of the starch and fiber content of the quinoa seed (col. 20 lines 9-17). Slimak does not explicitly teach isolated fiber or at least 50 weight % fiber.

It would have been obvious to one of ordinary skill in the art to recognize that the quinoa flour preparation of Slimak would contain at least 50 weight % fiber since all of the fiber from the quinoa seed is present in the flour (claim 19). Further, it would be reasonable for one of ordinary skill to expect to be successful in further processing the quinoa flour of Slimak to isolate a quinoa fiber product (claim 11) since Slimak discloses starch and fiber are distinct components of quinoa seed. The motivation to do so is dependent on the food product that one desires to make.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marsha M. Tsay whose telephone number is (571)272-2938. The examiner can normally be reached on M-F, 9:00am-5:00pm.

Art Unit: 1656

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Kathleen Kerr Bragdon can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maryam Monshipouri/
Primary Examiner, Art Unit 1656

June 5, 2008